

Appl. No. 10/615,753
Atty. Docket: 99B024/5
Response dated January 30, 2007
Reply to OA mailed November 1, 2006

RECEIVED
CENTRAL FAX CENTER

JAN 30 2007

Amendments to the Claims

This Listing of Claims will replace all prior versions, and listings of claims in the application:

Listing of Claims

1 - 50. (Canceled)

51. (Currently Amended) A method of loading catalyst containing activated SAPO molecular sieve catalyst into a heated system, the method comprising:

- (a) providing an activated SAPO molecular sieve catalyst having a methanol uptake index of at least 0.15; and
- (b) loading the activated SAPO molecular sieve catalyst into a heated system, wherein the catalyst is exposed to moisture and maintained at a temperature of 150°C or above during such exposure to moisture and before use of said catalyst in a catalytic process.

52. (Previously Presented) The method of claim 51, wherein the provided activated SAPO molecular sieve catalyst has a methanol uptake index of at least 0.4.

53. (Previously Presented) The method of claim 52, wherein the provided activated SAPO molecular sieve catalyst has a methanol uptake index of at least 0.6.

54. (Previously Presented) The method of claim 53, wherein the provided activated SAPO molecular sieve catalyst has a methanol uptake index of at least 0.8.

55. (Previously Presented) The method of claim 51, wherein the activated SAPO molecular sieve catalyst is maintained at a temperature of from 150 to 800°C.

56. (Previously Presented) The method of claim 55, wherein the activated SAPO molecular sieve catalyst is maintained at a temperature of from 175 to 600°C.

57. (Previously Presented) The method of claim 56, wherein the activated SAPO molecular sieve catalyst is maintained at a temperature of from 200 to 500°C.

Appl. No. 10/615,753
Atty. Docket: 99B024/5
Response dated January 30, 2007
Reply to OA mailed November 1, 2006

58. (Previously Presented) The method of claim 51, wherein the heated system comprises a reactor, regenerator or storage environment.

59. (Canceled)

60. (Previously Presented) The method of claim 51, wherein the activated SAPO molecular sieve comprises molecular sieve selected from the group consisting of SAPO-17, SAPO-18, SAPO-34, SAPO-35, SAPO-44, SAPO-47, SAPO-56, metal containing forms thereof, and mixtures thereof.

61. (Currently Amended) A method of maintaining catalytic activity of an activated SAPO molecular sieve catalyst, the method comprising:

- (a) loading an activated SAPO molecular sieve catalyst having its catalytically active sites unshielded into a reactor or a regenerator; and
- (b) exposing said catalyst to moisture and maintaining the activated SAPO molecular sieve catalyst at a temperature of 150°C or above when the catalytic sites of the activated SAPO molecular sieve are exposed to moisture before use of said catalyst in a catalytic process.

62. (Previously Presented) The method of claim 61, wherein the activated SAPO molecular sieve catalyst has a methanol uptake index of at least 0.15.

63. (Previously Presented) The method of claim 62, wherein the activated SAPO molecular sieve catalyst has a methanol uptake index of at least 0.4.

64. (Previously Presented) The method of claim 63, wherein the activated SAPO molecular sieve catalyst has a methanol uptake index of at least 0.6.

65. (Previously Presented) The method of claim 64, wherein the activated SAPO molecular sieve catalyst has a methanol uptake index of at least 0.8.

66. (Previously Presented) The method of claim 61, wherein the activated SAPO molecular sieve catalyst is maintained at a temperature of from 150 to 800°C.

Appl. No. 10/615,753
Atty. Docket: 99B024/5
Response dated January 30, 2007
Reply to OA mailed November 1, 2006

67. (Previously Presented) The method of claim 66, wherein the activated SAPO molecular sieve catalyst is maintained at a temperature of from 175 to 600°C.
68. (Previously Presented) The method of claim 67, wherein the activated SAPO molecular sieve catalyst is maintained at a temperature of from 200 to 500°C.
69. (Canceled)
70. (Previously Presented) The method of claim 61, wherein the activated SAPO molecular sieve catalyst comprises molecular sieve selected from the group consisting of SAPO-17, SAPO-18, SAPO-34, SAPO-35, SAPO-44, SAPO-47, SAPO-56, metal containing forms thereof, and mixtures thereof.
71. (Currently Amended) A method of maintaining catalytic activity of an activated SAPO molecular sieve catalyst, the method comprising:
- (a) loading an activated SAPO molecular sieve catalyst having its catalytically active sites unshielded into a storage environment; and
 - (b) maintaining the activated SAPO molecular sieve catalyst at a temperature of 150°C or above in the storage environment before use of said catalyst in a catalytic process.
72. (Previously Presented) The method of claim 71, wherein the provided activated SAPO molecular sieve catalyst has a methanol uptake index of at least 0.4.
73. (Previously Presented) The method of claim 72, wherein the provided activated SAPO molecular sieve catalyst has a methanol uptake index of at least 0.6.
74. (Previously Presented) The method of claim 73, wherein the provided activated SAPO molecular sieve catalyst has a methanol uptake index of at least 0.8.
75. (Previously Presented) The method of claim 71, wherein the activated SAPO molecular sieve catalyst is maintained at a temperature of from 150 to 800°C.

Appl. No. 10/615,753
Atty. Docket: 99B024/5
Response dated January 30, 2007
Reply to OA mailed November 1, 2006

76. (Previously Presented) The method of claim 75, wherein the activated SAPO molecular sieve catalyst is maintained at a temperature of from 175 to 600°C.

77. (Previously Presented) The method of claim 76, wherein the activated SAPO molecular sieve catalyst is maintained at a temperature of from 200 to 500°C.

78. (Previously Presented) The method of claim 71, wherein the catalyst of step (b) has catalytic sites exposed to moisture.

79. (Previously Presented) The method of claim 71, wherein the activated SAPO molecular sieve comprises molecular sieve selected from the group consisting of SAPO-17, SAPO-18, SAPO-34, SAPO-35, SAPO-44, SAPO-47, SAPO-56, metal containing forms thereof, and mixtures thereof.

80. (Currently Amended) A method of maintaining catalytic activity of an activated SAPO molecular sieve, the method comprising:

- (a) providing a SAPO molecular sieve having catalytic sites protected against loss of catalytic activity by covering with a shield;
- (b) removing the shield; and
- (c) once the shield has been removed, maintaining the molecular sieve at a temperature of at least 150°C, with no shield, while exposing the catalytic sites to moisture before use of said molecular sieve in a catalytic process.

81. (Previously Presented) The method of claim 80, wherein the shield is a template, carbonaceous material, anhydrous liquid or anhydrous gas.

82. (Previously Presented) The method of claim 81, wherein the shield is a template and the SAPO molecular sieve is stored in wet filter cake form.

83. (Previously Presented) The method of claim 81, wherein the SAPO molecular sieve, in its unshielded form, is maintained at a methanol uptake index that does not fall below 0.15.

Appl. No. 10/615,753
Atty. Docket: 99B024/5
Response dated January 30, 2007
Reply to OA mailed November 1, 2006

84. (Previously Presented) The method of claim 83, wherein the SAPO molecular sieve, in its unshielded form, is maintained at a methanol uptake index that does not fall below 0.4.
85. (Previously Presented) The method of claim 84, wherein the SAPO molecular sieve, in its unshielded form, is maintained at a methanol uptake index that does not fall below 0.6.
86. (Previously Presented) The method of claim 85, wherein the SAPO molecular sieve, in its unshielded form, is maintained at a methanol uptake index that does not fall below 0.8.
87. (Previously Presented) The method of claim 81, wherein the SAPO molecular sieve, in its unshielded form, is maintained at a temperature of from 150 to 800°C.
88. (Previously Presented) The method of claim 87, wherein the SAPO molecular sieve, in its unshielded form, is maintained at a temperature of from 175 to 600°C.
89. (Previously Presented) The method of claim 88, wherein the SAPO molecular sieve, in its unshielded form, is maintained at a temperature of from 200 to 500°C.
90. (Previously Presented) The method of claim 81, wherein the SAPO molecular sieve, in its unshielded form, is maintained in a reactor, regenerator or storage environment.
91. (Previously Presented) The method of claim 81, wherein the SAPO molecular sieve comprises molecular sieve selected from the group consisting of SAPO-17, SAPO-18, SAPO-34, SAPO-35, SAPO-44, SAPO-47, SAPO-56, metal containing forms thereof, and mixtures thereof.
92. (Currently Amended) A method of maintaining catalytic activity of an activated SAPO molecular sieve, comprising:
- (a) providing a SAPO molecular sieve, wherein the molecular sieve is protected from moisture by shielding catalytic sites within the molecular sieve;
 - (b) removing the shield to form an activated molecular sieve; and
 - (c) maintaining the molecular sieve at a temperature of at least 150°C, with no shield, and at a methanol uptake index that does not drop below 0.15 before use of said molecular sieve in a catalytic process.

Appl. No. 10/615,753
Atty. Docket: 99B024/5
Response dated January 30, 2007
Reply to OA mailed November 1, 2006

93. (Previously Presented) The method of claim 92, wherein the shield is a template, carbonaceous material, anhydrous liquid or anhydrous gas.
94. (Previously Presented) The method of claim 93, wherein the shield is a template and the SAPO molecular sieve is stored in wet filter cake form.
95. (Previously Presented) The method of claim 92, wherein the SAPO molecular sieve, in its unshielded form, is maintained at a temperature of from 150 to 800°C.
96. (Previously Presented) The method of claim 95, wherein the SAPO molecular sieve, in its unshielded form, is maintained at a temperature of from 175 to 600°C.
97. (Previously Presented) The method of claim 96, wherein the SAPO molecular sieve, in its unshielded form, is maintained at a temperature of from 200 to 500°C.
98. (Previously Presented) The method of claim 92, wherein the SAPO molecular sieve, in its unshielded form, is maintained at a methanol uptake index that does not fall below 0.4.
99. (Previously Presented) The method of claim 98, wherein the SAPO molecular sieve, in its unshielded form, is maintained at a methanol uptake index that does not fall below 0.6.
100. (Previously Presented) The method of claim 99, wherein the SAPO molecular sieve, in its unshielded form, is maintained at a methanol uptake index that does not fall below 0.8.
101. (Previously Presented) The method of claim 92, wherein the SAPO molecular sieve, in its unshielded form, is maintained in a reactor, regenerator or storage environment.
102. (Previously Presented) The method of claim 92, wherein the SAPO molecular sieve comprises molecular sieve selected from the group consisting of SAPO-17, SAPO-18, SAPO-34, SAPO-35, SAPO-44, SAPO-47, SAPO-56, metal containing forms thereof, and mixtures thereof.
103. (Currently Amended) A method of maintaining catalytic activity of an activated SAPO molecular sieve, the method comprising:

Appl. No. 10/615,753
Atty. Docket: 99B024/5
Response dated January 30, 2007
Reply to OA mailed November 1, 2006

- (a) providing a SAPO molecular sieve, wherein the molecular sieve is protected from moisture by shielding catalytic sites within the molecular sieve;
- (b) removing the shield to form an activated molecular sieve;
- (c) loading the activated SAPO molecular sieve into a storage environment; and
- (d) maintaining the molecular sieve at a temperature of at least 150°C, with no shield, and at a methanol uptake index that does not drop below 0.15 before use of said molecular sieve in a catalytic process.

104. (Previously Presented) The method of claim 103, wherein the shield is a template, carbonaceous material, anhydrous liquid or anhydrous gas.

105. (Previously Presented) The method of claim 104, wherein the shield is a template and the SAPO molecular sieve is stored in wet filter cake form.

106. (Previously Presented) The method of claim 103, wherein the SAPO molecular sieve, in its unshielded form, is maintained at a temperature of from 150 to 800°C.

107. (Previously Presented) The method of claim 106, wherein the SAPO molecular sieve, in its unshielded form, is maintained at a temperature of from 175 to 600°C.

108. (Previously Presented) The method of claim 107, wherein the SAPO molecular sieve, in its unshielded form, is maintained at a temperature of from 200 to 500°C.

109. (Previously Presented) The method of claim 103, wherein the SAPO molecular sieve, in its unshielded form, is maintained at a methanol uptake index that does not fall below 0.4.

110. (Previously Presented) The method of claim 109, wherein the SAPO molecular sieve, in its unshielded form, is maintained at a methanol uptake index that does not fall below 0.6.

111. (Previously Presented) The method of claim 110, wherein the SAPO molecular sieve, in its unshielded form, is maintained at a methanol uptake index that does not fall below 0.8.

Appl. No. 10/615,753
Atty. Docket: 99B024/5
Response dated January 30, 2007
Reply to OA mailed November 1, 2006

112. (Previously Presented) The method of claim 103, wherein the SAPO molecular sieve comprises molecular sieve selected from the group consisting of SAPO-17, SAPO-18, SAPO-34, SAPO-35, SAPO-44, SAPO-47, SAPO-56, metal containing forms thereof, and mixtures thereof.

113. (Currently Amended) A method of maintaining catalytic activity of an activated SAPO molecular sieve, the method comprising:

- (a) providing a SAPO molecular sieve, wherein the molecular sieve is protected from moisture by shielding catalytic sites within the molecular sieve;
- (b) removing the shield to form an activated molecular sieve;
- (c) loading the activated SAPO molecular sieve into a storage environment; and
- (d) storing or transporting the activated SAPO molecular sieve in an anhydrous environment, and at a methanol uptake index that does not drop below 0.15 before use of said molecular sieve in a catalytic process.

114. (Previously Presented) The method of claim 113, wherein the shield is a template, carbonaceous material, anhydrous liquid or anhydrous gas.

115. (Currently Amended) The method of claim 114, wherein the shield is a template ~~and the SAPO molecular sieve is stored in wet filter cake form.~~

116. (Previously Presented) The method of claim 113, wherein the SAPO molecular sieve, in its unshielded form, is maintained at a temperature of from 150 to 800°C.

117. (Previously Presented) The method of claim 116, wherein the SAPO molecular sieve, in its unshielded form, is maintained at a temperature of from 175 to 600°C.

118. (Previously Presented) The method of claim 117, wherein the SAPO molecular sieve, in its unshielded form, is maintained at a temperature of from 200 to 500°C.

119. (Previously Presented) The method of claim 113, wherein the SAPO molecular sieve, in its unshielded form, is maintained at a methanol uptake index that does not fall below 0.4.

Appl. No. 10/615,753
Atty. Docket: 99B024/5
Response dated January 30, 2007
Reply to OA mailed November 1, 2006

120. (Previously Presented) The method of claim 119, wherein the SAPO molecular sieve, in its unshielded form, is maintained at a methanol uptake index that does not fall below 0.6.
121. (Previously Presented) The method of claim 120, wherein the SAPO molecular sieve, in its unshielded form, is maintained at a methanol uptake index that does not fall below 0.8.
122. (Previously Presented) The method of claim 113, wherein the SAPO molecular sieve comprises molecular sieve selected from the group consisting of SAPO-17, SAPO-18, SAPO-34, SAPO-35, SAPO-44, SAPO-47, SAPO-56, metal containing forms thereof, and mixtures thereof.
123. (Previously Presented) The method of claim 113, wherein the anhydrous environment is a gas blanket or a liquid blanket.
124. (Previously Presented) The method of claim 123, wherein the anhydrous environment is a gas blanket.
125. (Previously Presented) The method of claim 124, wherein the anhydrous gas blanket has less than 1.2 volume percent water.
126. (Previously Presented) The method of claim 125, wherein the anhydrous gas blanket has less than 0.2 volume percent water.
127. (Previously Presented) The method of claim 126, wherein the anhydrous gas blanket has less than 0.02 volume percent water.
128. (Currently Amended) An activated SAPO molecular sieve in a heated system at a temperature of at least 150°C and exposed to moisture before use of said activated molecular sieve in a catalytic process.
129. (Currently Amended) The method molecular sieve in a heated system of claim 128, wherein the heated system comprises a reactor, regenerator or storage environment.
130. (Currently Amended) A method of maintaining catalytic activity of an activated SAPO molecular sieve, the method comprising:

Appl. No. 10/615,753
Atty. Docket: 99B024/5
Response dated January 30, 2007
Reply to OA mailed November 1, 2006

- (a) providing a SAPO molecular sieve having catalytic sites protected against loss of catalytic activity by covering with a shield;
- (b) removing the shield; and
- (c) storing, transporting or loading into a reactor system, the SAPO molecular sieve, in its unshielded form, in a hydrous environment at a methanol uptake index that does not fall below 0.15, before use of said activated molecular sieve in a catalytic process.

131. (Previously Presented) The method of claim 130, wherein the shield is a template, carbonaceous material, anhydrous liquid or anhydrous gas.

132. (Previously Presented) The method of claim 131, wherein the shield is a template and the SAPO molecular sieve is stored in wet filter cake form.

133. (Previously Presented) The method of claim 132, wherein the SAPO molecular sieve, in its unshielded form, does not fall below 0.4.

134. (Previously Presented) The method of claim 133, wherein the SAPO molecular sieve, in its unshielded form, does not fall below 0.6.

135. (Previously Presented) The method of claim 134, wherein the SAPO molecular sieve, in its unshielded form, does not fall below 0.8.